WHAT IS CLAIMED IS:

1   1.   A character validation method comprising the steps of:

2   retrieving a data value from a character stream;

3   determining a validity of a character represented by said value in response to a

4   member of a data structure corresponding to said value wherein said validity is

5   determined in response to a logical combination of status values in said member of said

6   data structure.

1   2.   The method of claim 1 further comprising the step of indexing into said data

2   structure using said data value, wherein said member of said data structure corresponding

3   to said data value is pointed to in response to said indexing step.

1   3.   The method of claim 2 wherein said data structure comprises an array.

1   4.   The method of claim 1 wherein, if the logical combination corresponds to a

2   logically "TRUE" value, said data value represents a valid character.

1   5.   The method of claim 1 further comprising the step of, if each character in said

2   stream is valid, applying a predetermined set of syntatic rules to byte patterns comprising

3   said character stream.

1   6.   The method of claim 1 further comprising the step of generating said data

2   structure.

1   7.   The method of claim 5 wherein said character stream comprises characters in

2   accordance with a specification for an extensible markup language, and wherein said

3   status values are set in accordance with a set of valid characters defined in said

4   specification.

1   8.   The method of claim 7 wherein the extensible markup language comprises XML

2   and wherein said syntatic rules include rules in accordance with XML.

1   9.   A data processing system comprising:

2   circuitry operable for retrieving a data value from a character stream;

3   determining a validity of a character represented by said value in response to a

4   member of a data structure corresponding to said value wherein said validity is

5   determined in response to a logical combination of status values in said member of said

6   data structure.

1   10.   The system of claim 9 further comprising circuitry operable for indexing into said

2   data structure using said data value, wherein said member of said data structure

3   corresponding to said data value is pointed to in response to said indexing step.

1   11.   The system of claim 10 wherein said data structure comprises an array.

1   12.   The system of claim 9 wherein, if said logical combination corresponds to a

2   logically "TRUE" value, said data value represents a valid character.

1   13.   The system of claim 9 further comprising circuitry operable for, if each character

2   in said stream is valid, applying a predetermined set of syntatic rules to byte patterns

3   comprising said character stream.

1   14.   The system of claim 9 further comprising circuitry operable for generating said

2   data structure.

1   15.   The system of claim 13 wherein said character stream comprises characters in

2   accordance with a specification for an extensible markup language, and wherein said

3   status values are set in accordance with a set of valid characters defined in said

4   specification.

1   16.   The system of claim 15 wherein the extensible markup language comprises XML

2   and wherein said syntatic rules include rules in accordance XML.

1 17.   A computer program product embodied in a machine-readable storage medium
2 including programming for validation, the programming comprising a set of instructions
3 for performing the steps of:
4   retrieving a data value from a character stream;
5   determining a validity of a character represented by said value in response to a
6 member of a data structure corresponding to said value wherein said validity is
7 determined in response to a logical combination of status values in said member of said
8 data structure.

1 18.   The program product of claim 17 further comprising instructions for performing
2 step of indexing into said data structure using said data value, wherein said member of
3 said data structure corresponding to said data value is pointed to in response to said
4 indexing step.

1 19.   The program product of claim 18 wherein said data structure comprises an array.

1 20.   The program product of claim 17 wherein, if the logical combination corresponds
2 to a logically "TRUE" value, said data value represents a valid character.

1 21.   The program product of claim 17 further comprising instructions for performing
2 the step of, if each character in said stream is valid, applying a predetermined set of
3 syntatic rules to byte patterns comprising said character stream.

1 22.   The program product of claim 17 further comprising the step of generating said
2 data structure.

1 23.   The program product of claim 21 wherein said character stream comprises
2 characters in accordance with a specification for an extensible markup language, and
3 wherein said status values are set in accordance with a set of valid characters defined in
4 said specification.

1   24.   The program product of claim 23 wherein the extensible markup language

2   comprises XML and wherein said syntatic rules include rules in accordance with XML.

1   25.   A character validation method comprising the steps of:

2   retrieving a data value from a character stream;

3   determining a validity of a character represented by said value in response to a

4   member of a data structure corresponding to said value wherein said validity is

5   determined in response to a logical combination of status values in said member of said

6   data structure, wherein said character stream comprises characters in accordance with a

7   specification for an extensible markup language, and wherein said status values are set in

8   accordance with a set of valid characters defined in said specification; and

9   if each character in said stream is valid, applying a predetermined set of syntatic

10   rules to byte patterns comprising said character stream in accordance with said extensible

11   markup language.

1   26.   The method of claim 25 wherein said character stream comprises a message

2   packaged in accordance with a predetermined information exchange protocol.